

CORRECTED VERSION

17 DEC 2004

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

PCT

(10) International Publication Number
WO 2003/106505 A1

(51) International Patent Classification⁷: **C08B 37/00**,
37/08, 37/10, A61K 31/726, 31/727, 31/737

(21) International Application Number:
PCT/IB2003/002339

(22) International Filing Date: 17 June 2003 (17.06.2003)

(25) Filing Language: Italian

(26) Publication Language: English

(30) Priority Data:
MI2002A001345 18 June 2002 (18.06.2002) IT
MI2002A001346 18 June 2002 (18.06.2002) IT
MI2002A001854 27 August 2002 (27.08.2002) IT

(71) Applicants and

(72) Inventors: **ORESTE, Pasqua, Anna** [IT/IT]; Via Mac Mahon, 43, I-20155 Milan (IT). **ZOPPETTI, Giorgio** [IT/IT]; Via Mac Mahon 43, I-20155 Milano (IT).

(74) Agent: **SANTORO, Tiziana**; Marietti, Gislon e Trupiano S.r.l., Via Larga, 16, I-20122 Milan (IT).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,

CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

(48) Date of publication of this corrected version:
26 February 2004

(15) Information about Correction:
see PCT Gazette No. 09/2004 of 26 February 2004, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR THE MANUFACTURE OF N-ACYL-(EPI)K5-AMINE-O-SULFATE-DERIVATIVES AND PRODUCTS THUS OBTAINED

(57) Abstract: A new method is described for the oversulfation of (epi)KS-N-sulfates to obtain (epi)K5-amine-O-oversulfates at extremely high degree of sulfation and for the transformation of these intermediates into new Nacyl-(epi)K5-amine-O-oversulfates basically free of activity on the coagulation parameters and useful in the cosmetic or pharmaceutical field. Also described are pharmaceutical compositions containing, as one of their active ingredients, an (epi)K5-amine-O-oversulfate.

WO 2003/106505 A1